TRAINMASTER

S. A. LAMEY

ASSISTANT TRAINMASTER

C. Y. McKEE

CHIEF DISPATCHER

L. FOSTER
Mexicali

SAN DIEGO AND ARIZONA EASTERN RAILWAY COMPANY

TIJUANA AND TECATE RAILWAY COMPANY

TIMETABLE

82

EFFECTIVE SUNDAY, MAY 16, 1948

AT 12:01 A.M.

PACIFIC STANDARD TIME

FOR THE GOVERNMENT AND INFORMATION OF EMPLOYES ONLY

H. R. GERNREICH
Vice President and General Manager

CARRISO GORGE SUBDIVISION

EASTWARD										WESTWARD			
	SECOND CLASS		FIRST CLASS		Mile Post or Kilometer Post	Timetable No. 82 May 16, 1948		Distance from El Centro	FIRST CLASS		SECOND CLASS	
Capacity of sidings		452 Freight		362 San Diego Passenger					363 San Diego Passenger		451 Freight	
		Leave Daily		Leave Daily		STATIONS			Arrive Daily		Arrive Daily	
				PM 2.45	0.0	R SAN DIEGO		148.1	s PM 4.00			
				2.47 PM	0.4	0.4 MARKET ST.		147.7	3.55 PM			
FIGURES SHOWN BETWEEN SAN DIEGO AND MARKET ST. ARE FOR INFORMATION ONLY. BE GOVERNED BY CURRENT TIMETABLE A. T. & S. F. RY.												
				PM 2.47	0.4	MARKET ST.	S. D. & A. E. Ry.	147.7	PM 3.55			
San Diego yard					0.7	0.3 FIRST ST.		147.4				
No. 1-45 BKWOYP		AM 7.30		2.49	1.1	TO-R 0.4 EIGHTH ST.		147.0	3.52		PM 4.55	
					3.3	2.2 Naval Repair Base Crossing		144.8				
P		7.40		2.57	4.8	1.5 TWELFTH ST. Natl. City		143.3	3.44		4.45	
14 P		7.46		3.02	7.4	2.6 CHULA VISTA JCT.		140.7	3.39		4.39	
30 P		7.50		3.05	9.1	1.7 BOAL		139.0	3.36		4.35	
20 P		7.54		3.08	11.1	2.0 PALM CITY		137.0	3.33		4.29	
Yd. Limits 30 KP		8.04		s 3.15	15.5	TO-R 4.4 SAN YSIDRO		132.6	s 3.25		4.17	
Yd. Limits 110 P		s 8.14		s **3.20**	K 0.1	R 0.7 TIJUANA		131.9	s **3.20**		s 3.55	
30		8.19		3.25	K 4.1	2.3 AGUA CALIENTE		129.6	3.14		3.48	
47 WP		f 8.33		**3.35**	K 13.6	5.5 GARCIA	T. & T. Ry.	124.1	3.05		f **3.35**	
33 P		f 8.41		3.43	K 19.2	3.5 MATANUCA		120.6	2.58		f 3.10	
35 WYP		f 9.01		3.59	K 33.9	9.1 REDONDO		111.5	2.43		f 2.48	
42 P		9.35		4.23	K 52.9	11.8 LA PUERTA		99.7	**2.19**		**2.19**	
Yard Limits 51 WP		s 10.35		s 4.38	K 59.9	TO-R 4.4 TECATE		95.3	s 2.11		s 1.55	
22		f 10.59		f 4.52	K 70.9	6.8 LINDERO		88.5	f 1.56		f 1.24	
16 P		11.01			60.3	0.7 DIVISION		87.8	1.55		1.22	
30 OP		AM 11.50		s 5.05	65.8	TO 5.5 CAMPO		82.3	s 1.44		1.15	
33 WP		PM 12.10		5.17	71.9	6.1 CLOVER FLAT		76.2	1.31		12.45	
33 P		**12.30**		5.30	78.4	6.5 PUEBLO		69.7	1.18		**12.30**	
45 YP		**1.06**		f 5.42	84.5	6.1 HIPASS		63.6	f **1.06**		12.10 PM	
10 OWP		1.33		s 6.01	92.9	TO 8.4 JACUMBA		55.2	s 12.41		11.33 AM	
37 P		1.36		6.03	94.0	1.1 TITUS		54.2	12.37		11.17	
				f	96.0	2.0 DUBBERS	S. D. & A. E. Ry.	52.1	f			
19 P		2.01		6.25	100.7	4.7 CARRISO GORGE		47.4	12.15		10.50	
P		2.08		6.32	102.3	1.6 TUNNEL 15 SPUR		45.8	12.08 PM		10.42	
72 WP		2.34		f 6.55	109.7	7.4 DOS CABEZAS		38.4	f 11.46 AM		10.10	
36 P		2.59		7.10	117.7	8.0 SUGAR LOAF		30.4	11.26		9.40	
35 WOYP		3.14		f 7.19	122.5	4.8 COYOTE WELLS		25.6	f 11.14		9.20	
65 P		3.30		f 7.31	130.0	TO 7.5 PLASTER CITY		18.1	f 11.03		8.40	
45 P		4.01		f 7.46	139.8	9.8 SEELEY		8.3	f 10.48		8.20	
15		4.15		7.53	145.1	5.3 WILSIE		3.0	10.40		8.07	
Yard Limits BKWYP		4.25 PM		s 8.00 PM	148.1	TO-R 3.0 EL CENTRO		0.0	10.35 AM		8.00 AM	
		Arrive Daily		Arrive Daily		(148.1)			Leave Daily		Leave Daily	
		(8.55) 16.48		(5.13) 28.31		Time over District / Average Speed per Hour			(5.20) 27.69		(8.55) 16.48	

No. 363 stop on flag at Mills Crossing.

Nos. 362, 363, 451 and 452 use SP main track between junction switch and SP station, El Centro, moving with caution. Schedule time and train orders for SD&AE trains apply at junction switch.

Nos. 451 and 452 will operate as Mixed trains between Tijuana and Lindero, and handle passengers between those points only.

CORONADO SUBDIVISION

EAST-WARD ↓ | Timetable No. 82 May 16, 1948 | WEST-WARD

Capacity of sidings	Mile Post Location	STATIONS	Distance from K St. (Chula Vista)
San Diego yard	4.8	TWELFTH ST. Natl. City	4.8
		0.9	
	5.7	24th ST. Natl. City	3.9
		1.4	
	7.1	POTASH	2.5
		0.3	
	7.4	F STREET JCT.	2.2
		0.2	
	7.6	CHULA VISTA JCT.	2.0
		0.9	
	8.5	TO CHULA VISTA	1.1
		1.1	
	9.6	K St. Chula Vista	0.0

(4.8)

EAST-WARD ↓ | Timetable No. 82 May 16, 1948 | WEST-WARD

Capacity of sidings	Mile Post Location	STATIONS	Distance from North Island
San Diego yard	7.4	F STREET JCT.	13.9
		2.5	
13	9.9	SALT WORKS	11.4
		2.4	
	12.2	FORT EMORY	9.0
		6.0	
11	18.3	TENT CITY	3.0
		2.4	
	20.7	CORONADO	0.6
		0.6	
Yard Limits	21.3	NORTH ISLAND	0.0

(13.9)

Note: Navy tracks used beyond MP 21.3.

ADDITIONAL STATIONS

NAME		Mile Post	Capacity
Carriso Gorge Subdivision			
Linen	(Spur)	9.5	16
Standard	(Spur)	K 5.9	4
Barrett	(Spur)	67.1	16
Clover Flat Pit	(Spur)	74.4	17
Mills Crossing		83.5	
Edgar	(Spur)	137.1	6

LA MESA SUBDIVISION

EAST-WARD ↓ | Timetable No. 82 May 16, 1948 | WEST-WARD

Capacity of sidings	Mile Post Location		STATIONS	Distance from El Cajon
San Diego yard BKWOYP	1.1	TO-R	EIGHTH ST.	15.7
			3.6	
San Diego yard 13	4.7		CHOLLAS	12.1
			5.7	
5	10.4		LEMON GROVE	6.4
			1.9	
25	12.3		LA MESA	4.5
			3.0	
9	15.3		GROSSMONT	1.5
			1.5	
19	16.8		EL CAJON	0.0

(15.7)

RULE A. All, or portions of, the following rules have been changed. Pasters have been printed covering these changes, and employes must have the pasters in their copy of Book of Rules:

Rules	10(H)	295
	15	297
	26	705
	99	707
	104(D)	708
	210	763
	221	837
	271	

Definition of FIXED SIGNAL is changed to read as follows:

"A signal of fixed location indicating a condition affecting the movement of a train, such as train-order, automatic, interlocking or absolute signal; switch, stop boards, yard limit boards or speed boards."

RULE 2. Watch Inspectors:

Stanley A. Pope, Manager of Time Service.....San Francisco
San Diego.....H. A. Cameron, Watts Building
San Diego.....R. C. Wilson, 523 B St.
El Centro.....J. L. Bledsoe
Calexico.....P. E. Hines

RULE 2 (A). Watches subject to inspection must be presented monthly, between first and fifteenth, instead of semi-monthly, to a designated inspector.

RULE 10 (H) is changed to read: "Yellow signal must be placed one-fourth mile from structure," instead of three-fourths mile.

RULE 10 (J) is changed to read:

"Speed boards will be located to the right of track in direction of approach where practicable, except on double track where trains keep to left, they will be located to the left if proximity of adjoining main track prevents location to the right.

"Speed boards that prescribe reduction in speed will be located one-fourth mile from initial point of restriction. Speed boards that authorize an increase in speed will be located at the point where higher speed is permissible, and speed may be increased accordingly as soon as rear of train has passed the speed board.

FIG. 1 FIG. 2 FIG. 3

"The higher number on speed board indicates the maximum speed of trains consisting entirely of passenger equipment, and the lower number indicates the maximum speed of all other trains. Where but one number is shown it indicates the maximum speed of all trains."

RULE 15 first and second paragraphs are changed to read:

"The explosion of one torpedo is a signal to stop. When an unattended torpedo is exploded, train, after stopping, may proceed with caution to a point not less than one-fourth mile from point where torpedo was exploded.

"The explosion of two torpedoes is a signal to proceed with caution for not less than one-half mile."

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following stations:

West MP		East MP
	San Diego	4.8
	" (Coronado Subdivision)	7.4
	" (La Mesa Subdivision)	4.7
14.5	San Ysidro-Tijuana	K5.1
K58.9	Tecate	K62.2
147.2	El Centro	
21.3	North Island (Coronado Subdivision)	

Yard limit boards on T&TRy. read "Patio Limite."

RULE 99. Third and fourth paragraphs are changed to read:

"If recalled from a point less than one-fourth mile from rear of his train, he must, if safety to train requires, leave lighted fusee at proper intervals and, if conditions warrant, also place two torpedoes on the rail three rail-lengths apart.

"If not recalled, one-fourth mile from rear of train he must place one torpedo on the rail; one-half mile from rear of train, or when recalled, if one-fourth mile or more from rear of train, he must place two torpedoes on the rail three rail-lengths apart." (rest of paragraph unchanged.)

GENERAL REGULATIONS

RULE 825. When necessary to cut crossing and a distance of 100 feet on each side cannot be provided, a flagman must protect. Cars must not be left in any position that would in any way intercept the view of an autoist or pedestrian of an approaching train unless crossing is protected as stated above.

When cars are left on grade not protected with derail they must be chained to the rail.

Cars must not be cut off train on grade, depending on hand brakes or air brakes to hold them, but must be placed with the engine.

RULE 831. Second paragraph is changed to read:

"Women and children must not be permitted to ride in outfit cars when moved by freight train. Other occupants of outfit cars must remain inside and not ride on top, sides or between these and other cars during course of road or yard movements."

RULE 833. Whenever practicable locomotive cranes, or cranes of similar type must be handled in trains with heavy end forward.

Cranes or machines with rotating body, loaded on open cars, must not be moved until inspected and released by mechanical department. Conductors must not move Jordan Spreaders, except when in use, unless wings are protected against spreading by chain or tie bar extending from wing to wing and wing arm to wing arm.

RULE 836. Cars moved from one station to another ahead of engine on descending grade must be chained to the engine. Switching movements on descending grade must be protected by a derail. When practicable, engine must be kept on lower end of cars.

MISCELLANEOUS

Engines heavier than C class (200,000 pounds on drivers) are not permitted to operate on SD&AERy.

When pushing trains out of yards engine will not be placed behind wooden underframe equipment.

Helper engine or engines in Freight and Mixed Trains will be handled as follows:

EASTWARD between Redondo and Hipass: Helper or helpers must be cut in train so that one half of tonnage to be handled by helpers will be behind them.

WESTWARD between Coyote Wells and Hipass: When only one helper engine, this engine to be handled on head end of train. When two helpers, they must be cut in train so that one half of tonnage to be handled by helpers will be behind them.

Employes of the SD&AERy., while performing service on tracks of the SP at or between El Centro and Calexico, are under jurisdiction of the officers and will be governed by Rules and Regulations of the Transportation Department, timetable and bulletins of the SP.

SPEED RESTRICTIONS

All trains must run carefully during and after storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE ABSOLUTE SAFETY, REGARDLESS OF TIME.

Maximum speed of trains, except as otherwise noted, in miles per hour as follows:

	MPH
Passenger trains	40
Freight and mixed trains and light engines	30
Engines 101 to 106, inclusive, and Consolidation engines	30
Engines backing, coupled in train or light, except	25
Between Hipass and Jacumba	20
On branch lines	20
Trains handling locomotive crane	20
Trains handling dead or disabled engines with all rods on or with main or side rods removed	30
Same with main and side rods removed	20
Through sidings, yard and other side tracks	10
ALL TRAINS between following points:	
Market St. and Schley St.	20
Over road crossing at Fifth Ave., San Diego	15
Over road crossing at 28th St., San Diego	20
Over road crossings 8th to 18th Sts., National City	20
Between Bridge 98-C and Tunnel 8	10
Between Tunnel 5 at MP 96.6 and Culvert 106.71	15
PASSENGER TRAINS (eastward and westward):	
Between Hipass and Jacumba	30
FREIGHT AND MIXED TRAINS, LIGHT ENGINES:	
Between Hipass and Jacumba	20
PASSENGER TRAINS DESCENDING between following points:	
Redondo and Kilometer 54—Tecate and MP 83	35
Culvert 106.71 and Coyote Wells	35
FREIGHT AND MIXED TRAINS DESCENDING between following points:	
Redondo and Kilometer 54—Tecate and MP 83	25
Hipass and Jacumba—Culvert 106.71 and Coyote Wells	20
ALL TRAINS:	
LA MESA SUBDIVISION:	
Across 13th St. and National Ave.	10
Across 16th St. on Commercial St.	10
Crossing 28th, 30th and 32nd Sts., on Commerical St.	5
Between 8th St. and Francis St.	15
Between Francis St., San Diego and El Cajon, except	25
On curves between east switch Lemon Grove and La Mesa, and on first curve east of La Mesa	20
CORONADO SUBDIVISION:	
On F St. and 3rd Ave., Chula Vista	10
Between 12th St., National City and Bridge 6.02	10
Between Bridge 6.02 and Hotel oil spur, Coronado	15
Between Hotel oil spur, Coronado and North Island	12

When train order is received indicating that main track is out of service and that trains are to be detoured through a siding or other track, or over a shoofly, necessitating a reduction in normal train speed, signal 16(f) must be sounded on passenger trains one mile before reaching point where train must reduce speed, which must be acknowledged by whistle signal 14(g).

SPEED TABLE

Speed per Hour	1 Mile in Min. Sec.	1 Kilometer in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.	1 Kilometer in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.	1 Kilometer in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.	1 Kilometer in Min. Sec.
6	10.00	6.13	21	2.51	1.46	31	1.56	1.12	41	1.27	0.54
8	7.30	4.40	22	2.43	1.41	32	1.52	1.10	42	1.25	0.53
10	6.00	3.44	23	2.36	1.37	33	1.49	1.08	43	1.23	0.52
12	5.00	3.06	24	2.30	1.33	34	1.45	1.05	44	1.21	0.51
15	4.00	2.29	25	2.24	1.29	35	1.42	1.03	45	1.20	0.50
16	3.45	2.20	26	2.18	1.26	36	1.40	1.02	46	1.18	0.48
17	3.31	2.11	27	2.13	1.23	37	1.37	1.00	47	1.16	0.47
18	3.20	2.04	28	2.08	1.20	38	1.34	0.58	48	1.15	0.46
19	3.09	1.57	29	2.04	1.17	39	1.33	0.57	49	1.13	0.45
20	3.00	1.52	30	2.00	1.15	40	1.30	0.56	50	1.12	0.44

HOSPITAL DEPARTMENT SURGEONS

LOCATION	NAME	TITLE
San Francisco	Dr. W. W. Washburn	Chief Surgeon
San Diego	Dr. T. F. O'Connell	District Physician and Surgeon
San Diego	Dr. H. G. Holder	District Physician and Surgeon
San Diego	Dr. Paul Shea	Asst. Dist. Physician and Surgeon
San Diego	Dr. H. W. Geistweit	Oculist and Aurist
National City	Dr. T. N. Lococo	District Physician and Surgeon
Tijuana	Dr. Molina Reyes	District Physician and Surgeon
Tecate	Dr. Manuel Aguilar	District Physician and Surgeon
El Centro	Dr. F. W. Peterson	District Physician and Surgeon
El Centro	Dr. W. W. Apple	District Physician and Surgeon
Calexico	Dr. T. E. Bartholomew	District Physician and Surgeon

HOSPITALS

GENERAL HOSPITAL.....SAN FRANCISCO, CALIF.

MERCY HOSPITAL.....HILLCREST DRIVE, SAN DIEGO, CALIF.

RATING OF ENGINES
In Units of 1000 pounds (Ms)

Engine No.	Nominal Class	Official Class	Garcia to Redondo .9% Grade	Redondo to Hipass 1.4% Grade	Plaster City to Coyote Wells .9% Grade	Coyote Wells to Hipass 2.2% Grade	.4% Grade	Level Track
27,2385,2386	T-57,58	T-63 21/26 141-S	2300	1350	2300	830	4350	12200
50	C-30	C-50 20/24 122	2050	1200	2050	760	3800	10600
2311 to 2362	T-28,31	T-63 22/28 162-S	2900	1700	2900	1050	5450	15250
2363 to 2384	T-32,40	T-69 23/28 174-S						

RULE 30. Engine bell must be rung continuously between the following points:

San Diego and Kilometer 7; Garcia and east end of Tunnel 2; Tecate and Campo; MP 96 and MP 106.

RULE 83 (B). First-class trains may register by ticket at Eighth St.

RULE 98. RAILROAD CROSSINGS NOT INTERLOCKED: At following grade crossings trains will stop not nearer than 50 feet nor farther than 500 feet from crossing and will proceed only on signal from flagman:

Crossing at Chula Vista. Exception—Carriso Gorge Subdivision trains will expect to find the main track blocked and will pass over the crossing not to exceed 15 MPH.

RULE 103 (A). Switching movements across Fifth Ave., San Diego, must be protected by flagman.

Movements on Richfield Oil spur across Harbor Drive (Colton Ave.) San Diego, must be protected by flagman.

Movements on Navy spur across Eighth St. National City, must be protected by flagman account spur not connected to crossing signals.

RULE 104. The normal position of junction switches at Twelfth St., National City and Chula Vista Jct. is for the San Diego-El Centro main track.

RULE 105. Track No. 1 in classification yard is siding for Eighth St.

First crossover switch west of San Ysidro station is initial switch for westward trains.

West switch at west end of San Ysidro yard is initial switch for eastward trains.

RULE 221. Trains must obtain clearance before leaving:

Eighth St.....Eastward trains.

San Ysidro, Tecate.....All trains.

AUTOMATIC BLOCK SIGNALS

RULE 505. When Signals No. 1022 and No. 1023 are in stop position, train shall stop and then proceed immediately with caution to Bridge No. 102-A, and await arrival of motor car patrolman following train, who will inspect bridge and authorize train to proceed if safe to do so.

RULE 535. Spring switches not equipped with facing point locks are located as follows, and speed indicated in Speed Restrictions table must not be exceeded while passing over them in facing movement, or in trailing through them:

Location		Normal Position
Eighth St.	Enginehouse lead	Main track

Spring switches are also located on other tracks as follows:

Stem switch on wye at Eighth St., two on enginehouse lead, and five on enginehouse tracks at Eighth St.

When a spring switch is hand thrown, trainman so setting same must again set it for normal position after movement has been completed, unless he has arranged for another trainman to do so.

AUTOMATIC INTERLOCKING

Naval Repair Base Crossing, MP 3.3

Limits extend from home signal 450 feet west of crossing to home signal 450 feet east of crossing. Derails on Navy track only. Normal signal indication proceed for SD&AERy.

Trains and engines must not exceed 20 MPH between home signals.

If signal indicates "stop" observe Rule 663 and proceed. If signal indicates "stop" and not attended by trainman or operator on Navy track, and signal does not clear when train enters interlocking limits, make report from next train-order office.

RULE 869. All brakemen, except rear brakeman, will ride on top of freight and mixed trains as follows:

EASTWARD.....Hipass to Jacumba. Culvert 106.71 to Coyote Wells.

WESTWARD ON TRAINS OF 25 OR MORE CARS.....Mile Post 83 to Tecate. Kilometer 54 to Redondo.

Rear brakemen on freight and mixed trains between Garcia and Matanuca and on descending grades between Redondo and Coyote Wells will observe track from rear of caboose or coach so that train may be stopped in event of derailment. Lights are provided on coaches and Dietz lanterns on cabooses to assist in observing the track.

RULE 878. Engine flues must be sanded eastward approaching Hipass, westward when approaching Culvert 106.71.

Engine flues must not be sanded while passing places where damage from fire might result.

RULE 827. TRAIN INSPECTION.

Westward freight and mixed trains will stop not less than five minutes at Clover Flat or Campo and Tecate for cooling of wheels and inspection.

Eastward freight and mixed trains will stop not less than five minutes at Jacumba, Culvert 106.71, Sugar Loaf and Coyote Wells for cooling of wheels and inspection.

Engines running light on descending grade must stop for inspection at freight train inspection points, a sufficient length of time for engineer to assure himself that tires and machinery are in satisfactory condition.

AIR BRAKE RULES

RULE 17. All retainers on freight and passenger trains must be used: Eastward Hipass to Jacumba, Culvert 106.71 to Coyote Wells.

RULE 25. When helper engines are in trains, after a rear end test has been made, the leading engine must not attempt to start until the helper engine has whistled off. The helper engine must not whistle off until receiving signal from the rear, which will not be given before the air pressure on caboose gauge indicates seventy (70) pounds.

Rear end test must be made by all freight and mixed trains at Mills Crossing or Hipass.

Rear end test must be made by eastward freight and mixed trains at Culvert 106.71.

RULE 33. Gross tonnage of any freight train must not exceed the following number of Ms per operative brake between the stations shown:

Hipass and Coyote Wells.....100 Ms

RULE 39. Running test must be made by passenger trains at Hipass.

Air brakes on two adjoining cars must not be cut out leaving any station where cars can be separated.

MISCELLANEOUS

Avoid taking water at emergency water stations at Redondo and Dos Cabezas. If necessary to take water, take only enough to reach next unrestricted water station.

Eastward trains and light engines have sufficient water in tank at Jacumba to make Calexico.

Eastward helpers making turn at Coyote Wells take full tank of water at Jacumba.

Load limit (car and contents):

San Diego-El Centro.....200,000 pounds

Unless authorized by General Manager, heavier loads must not be handled.

INTERNATIONAL BOUNDARY

Trains approaching gate at International Boundary, San Ysidro, will sound one long blast of whistle to inform Government Officials of their presence. If prompt reponse is not gained after whistle blast, an employe will go at once to Government Headquarters and request service.

Trains will stop before crossing the International Boundary line at San Ysidro. Trains in both directions when not accompanied by Customs Immigration Rider will stop at Campo. Trains in both directions will stop at Tecate. Trains must not cross International Boundary line without first notifying Customs and Immigration Officers and obtaining necessary permission from them.

Westward trains coming into Tijuana, when not accompanied by rider, will proceed without stopping to Boundary line for inspection by officers of the Mexican Government, after which cars for Tijuana may be set out and necessary switching performed. Mixed trains will also stop passenger equipment at depot when passengers are handled.

Trains carrying passengers will not stop between Lindero and Campo stations except in cases of emergency.

STRUCTURES LESS THAN STANDARD CLEARANCE

Carriso Gorge Subdivision

Ice dock Boal is equipped with aprons which must be raised and secured before moving cars on adjoining track.

Pipe and counter-weights on Malt Plant, Tecate.

On Brewery spur, Tecate, pilaster at northwest corner of Malt building will not clear man on side of car, and pipes over track 30 ft. from east end will not clear man on top of car. Overhead wires will not clear man on top of car.

Corrugated iron shed north side of Oil spur, Tecate, back of station, and car puller at mill on same track will not clear man on side of car.

San Diego yard

Trolley wires and pole on Fifth Ave. spur between J and L Sts.

Union Oil Co. spur tracks.

Sperry Flour Co. spur.

INSTRUCTIONS IN CASE OF FIRE

1. FIRE FIGHTING EQUIPMENT:

(a) Five gallon fire extinguishers are located at following points:

West end Tunnel 1	West end Tunnel 14
West end Tunnel 2	West end Tunnel 15
Between Tunnels 3 and 4	West end Tunnel 16
West end Tunnel 5	East end Tunnel 17
West end Bridge 97-C	West end Tunnel 18
East end Tunnel 6	West end Bridge 104-A
Both ends Tunnel 8	West end Bridge 104-B
West end Tunnel 10	West end Tunnel 19
West end Tunnel 11	West end Tunnel 20
West end Tunnel 12	West end Tunnel 21
East end Tunnel 13	

Note:—Fire extinguishers at tunnels are located just inside tunnel portals.

(b) Connections for portable phones in Carriso Gorge are located at following points:

Near West end Tunnel 5	Near both ends Tunnel 14
East end Tunnel 6	West end Tunnel 15
West end abandoned Tunnel 7	East end Tunnel 16
Both ends Tunnel 8	West end Tunnel 17
West end Tunnel 9	West end Tunnel 18
West end Tunnel 10	West end Tunnel 19
East end Tunnel 12	West end Tunnel 20
East end Tunnel 13	West end Tunnel 21

There are telephones at the east end of Tunnel 11 and at the east end of Bridge 102-A.

These connections are provided for emergency service only and anyone using them in an attempt to get help must, after his call has been placed, DISCONNECT HIS PORTABLE PHONE so that operator can call camps. Failure to disconnect phone will interfere with calling circuit.

(c) Fire Hose and connections on Engines:

Engines No. 27, 2343, 2347, 2357, 2360, 2362, 2370, 2373, 2383, 2384, 2385 and 2844, are equipped with fire hose connections on feed water line between the injector and the check valve. On the deck of the tender of these engines there is a hose reel holding 100 feet of fire hose with nozzle attached. When using hose, be sure to close valve ahead of the check valve before opening valve on the fire hose connection. This will prevent hot water backing up into hose line in case check valve fails to seat.

Other engines not equipped with hose connections, if location of fire permits, will get Tank Car at Tunnel 15 spur and move it to fire, using equipment mounted on tank.

(d) Tank Car MW 1001:

Tank Car MW 1001 with 10,000 gallons of water is kept first out at Tunnel 15 spur. On deck over top of tank is mounted a steam pump, 300 feet of fire hose on a reel, and a tool box containing fire-fighting tools and fittings. Car is equipped with headlights on each end, and extension cord to be plugged into socket in cab of engine is kept in tool box. Steam line to pump is fitted with steam hose connection at each end of car, so that pump may be operated from either end of engine or train, and by either steam or air. A length of steam hose and fittings are kept in tool box of tank car to make connections. When pump is run by air, automatic brake valve on engine should be held in Full Release position to increase volume of air.

2. INSTRUCTIONS:

(a) Rear brakeman and fireman on eastward trains will keep a sharp lookout after passing Tunnel 15 spur and be prepared to accept stop signal from Tunnel Guard.

(b) Steam hose must be coupled and steam cut through to rear of passenger trains at all times regardless of weather conditions. This in order to handle fire-fighting car at Tunnel 15 spur at rear of train.

(c) Trains discovering a fire should immediately call operator so other equipment can be dispatched to the fire. Every effort should be made to extinguish the fire with the equipment on the engine and tender. If it is evident that fire cannot be put out with equipment at hand, or if engine is not equipped with fire hose, and it is possible to reach tank car at Tunnel 15 spur, get that car and return it to the fire while there is sufficient water left in the tender to make the round trip. Tank car should be picked up so that it will be headed into the fire ahead of engine or train. Stake and pinch bar are included with tools on deck of tank car.

Tunnels and bridges in some places are located so close together that a fire may spread to another structure. While it might not be possible to extinguish the fire in one structure, equipment should stand by to prevent fire from spreading.

Employes will use their best judgment in meeting an emergency and act in the safest and quickest way to meet the conditions.

(d) Tank Car MW 1001 must always be left, filled and first out at Tunnel 15 spur.

CORONADO SUBDIVISION

RULE 98. RAILROAD CROSSINGS NOT INTERLOCKED: At following grade crossings trains will stop not nearer than 50 feet nor farther than 500 feet from crossing and will proceed only on signal from flagman:

Crossing at Chula Vista. Exception—Carriso Gorge Subdivision trains will expect to find the main track blocked and will pass over the crossing not to exceed 15 MPH.

RULE 103 (A). At Fourth Ave., and at sidewalk on Third Ave. near Park Way, Chula Vista, stop and be preceded over crossing by flagman.

Movements on Fort Emory spur across State Highway must be protected by flagman.

Boulevard stops at Fourth St., Pomona Ave. and Orange Ave., Coronado, do not apply to trains.

RULE 104. The normal position of junction switches at Twelfth St., National City and Chula Vista Jct. is for the San Diego-El Centro main track.

MISCELLANEOUS

Engines weighing over 145,000 pounds on drivers are not permitted to operate on Coronado Subdivision.

Load limit (car and contents):

National City-Chula Vista.....169,000 pounds
San Diego-North Island.....169,000 pounds

Unless authorized by General Manager, heavier loads must not be handled.

LA MESA SUBDIVISION

RULE 30. Engine bell must be rung continuously between the following points:

Eighth St. and Mount Hope Cemetery.

RULE 103 (A). At La Mesa Blvd., La Mesa, stop and be preceded over crossing by flagman.

RULE 105. Track No. 1 in classification yard is siding for Eighth St.

AIR BRAKE RULES

RULE 25. When helper engines are in trains, after a rear end test has been made, the leading engine must not attempt to start until the helper engine has whistled off. The helper engine must not whistle off until receiving signal from the rear, which will not be given before the air pressure on caboose gauge indicates seventy (70) pounds.

Air must be cut in when handling cars on Commercial St. between 13th St. and 32nd St., San Diego.

MISCELLANEOUS

Engines weighing over 145,000 pounds on drivers are not permitted to operate on La Mesa Subdivision.

Load limit (car and contents):

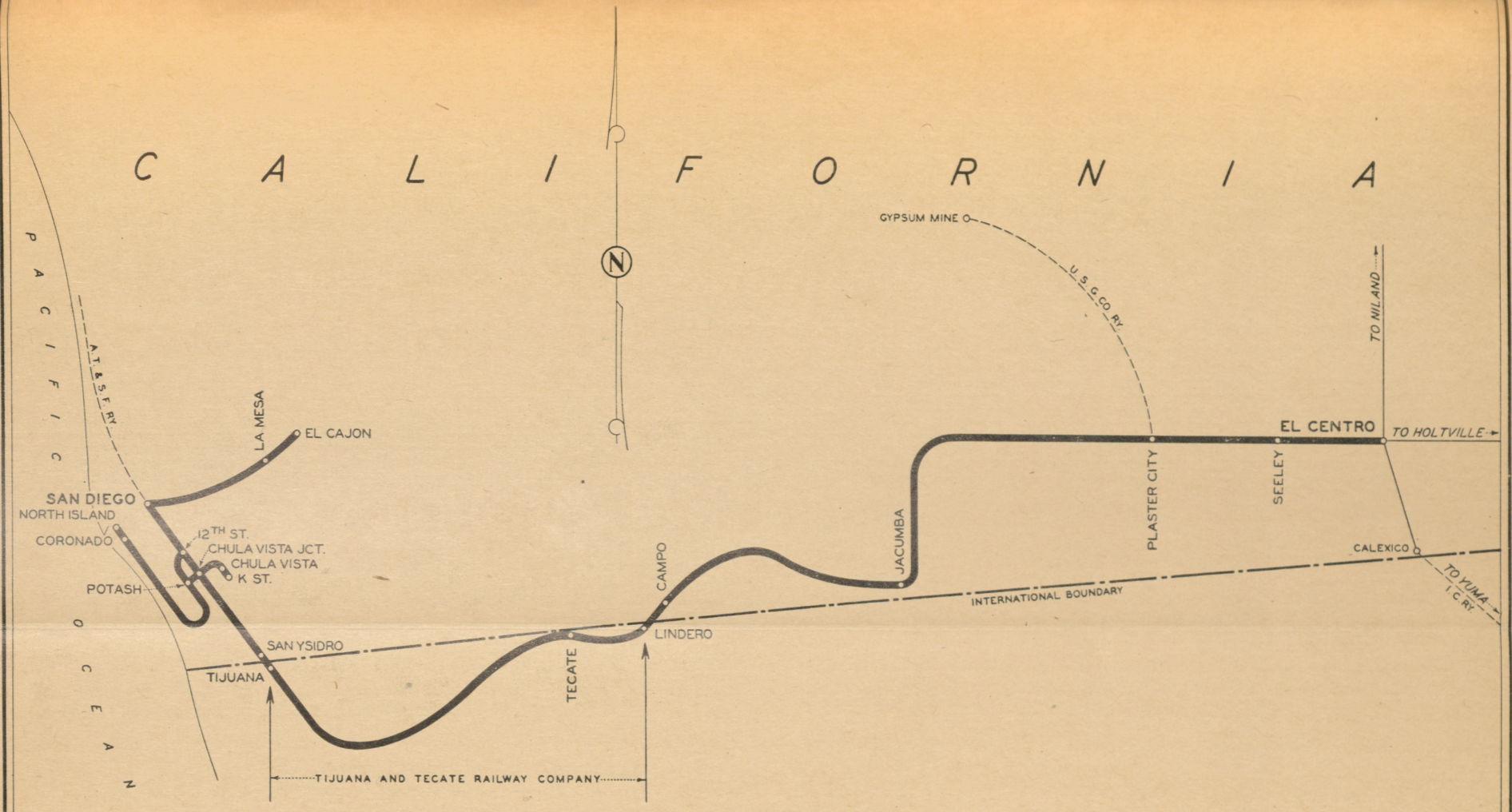
San Diego-El Cajon.....169,000 pounds

Unless authorized by General Manager, heavier loads must not be handled.

STRUCTURES LESS THAN STANDARD CLEARANCE

La Mesa Subdivision

Overhead highway bridge between Grossmont and El Cajon.



SAN DIEGO AND ARIZONA EASTERN RAILWAY COMPANY